

FINAL REPORT
PEAR BUREAU NORTHWEST CONSUMER TRENDS AND ATTITUDES
12-25-G-0405

The issue or problem

In our grant application we identified four issues/areas that we wanted to explore within our research project. The ultimate goal of the project was to gain better understanding of the reasons why consumers resist packing fresh fruit into lunches, backpacks and briefcases so that we could set up programs to resolve that resistance.

As a recap, here are highlights from each identified issue.

The State of Children's Nutrition

....There are 76 million children under the age of 18 in the USA. Thirteen percent of children aged 6 to 11 years and 14 percent of adolescents aged 12 to 19 years in the United States are overweight. We would like to see how offering a product like the Pear Packer to children under 18 would affect their fruit consumption habits. If it's just as easy to pack a pear to school as it is to buy a soda or a candy bar from a vending machine, will they be more apt to choose the fruit?

A Society on the Move

....In today's society, convenience is king, and anything that helps a consumer simplify their lives is considered a good thing. Fast food restaurants, pre-packaged foods high in preservatives and calories and other snacks and candy generally monopolize convenience in the food industry. Fresh fruit, the ideal option for a snack, doesn't seem to be a top choice for a mobile consumer. Market research would allow us to narrow in on what consumers find dissatisfying about taking fruits, including pears, on the go. The Pear Packer is a product that will take pears out of the house, and on the move. It helps a pear become a "fast food", a convenience item, and a much healthier choice for consumers on the go. We'd like to see how consumers respond to this product and how it changes their perception of choosing fruit more often as a packable snack or meal accompaniment.

Making fruit fun

....The Pear Packer is an innovative package that we feel will have a wide appeal to the millions of school kids who pack lunches, to families who would like more options for healthy on-the-go snacks and to people who bring their lunch and snacks to work.

Benefiting an Industry and Category

....This research project would benefit all perishable fruits, especially soft fruits that damage (such as peaches and plums) easily. The fruit category as a whole can use all the help it can get to raise consumption rates and the Pear Bureau will gladly share information that can be a boon to the whole fruit category.

How the issue or problem was approached via the project

The research objectives of the project were (1) to evaluate consumers' fresh pear eating habits and attitudes before and after receiving a pear information and tool kit that supports the concept of fresh pears as an "on-the-go" food option; and (2) to compare consumers' responses to the pear tool kit in 3 different US cities: Portland OR, St. Paul, MN and Ithaca, NY. The total time period would be five weeks, which was determined to be an effective tracking time.

In phase one, sample groups in the three test market cities (Portland, OR, St. Paul, MN, and Ithaca, NY) were asked to track their pear eating habits for two weeks using paper and electronic tracking tools (see attachment a). At the end of the first two-week tracking period, the groups met for a first interview/focus group session to share their current knowledge of and attitudes towards pears. This phase established a baseline to which the second phase would be compared.

At the conclusion of the focus group, the participants were provided with a set of "tools" in the form of an insulated lunch bag, a pear packer, information (brochures) and a pear slicer. The primary tool of interest from the Pear Bureau's standpoint was the Pear Packer. The "Pear Packer" is a reusable plastic container that protects a ready-to-eat pear from being damaged, hopefully resolving the transport issue shared by many soft, perishable fruits.

Participants were then asked to track their eating habits and use of tools for another three weeks. At the end of this period, they were interviewed in a second focus group to determine how the tools impacted their pear eating habits.

The areas that were tracked by consumers were number of pears eaten, type of pear eaten (fresh or canned), where pears were eaten (at home or on the go) and frequency of tools used (pear packer, pear slicer, pear information or lunch box).

The number of participants by location was: OR: 70; MN: 72; NY: 82. Total number of participants = 224. The three geographical regions were selected to see if there are regional differences in consumer attitudes.

The participating consumers were recruited based on the following segments:

- adult family members with children
- children
- working adults
- adult students

Contribution of public or private agency cooperators

The contribution and cooperation of the Food Innovation Center (FIC), the organization that facilitated and conducted the research, was invaluable to this project. The team working on the Pear project went above and beyond their allotted time to ensure that this project would be a valuable and wise investment for the pear industry.

Dr. Anna Marin, Sensory & Consumer Program Director of the FIC, designed the overall experiment to track consumers' pear consumption over time and also the consumer interviews to evaluate their pear eating habits before and after receiving the pear tools. The FIC coordinated the consumer tracking and interviews at the other test sites. Anna Marin conducted all the pre-tool and post-tool interviews at the 3 sites. Carlo Pearson, an FIC personal consultant, set up the web-based survey so participants from the other cities could record their pear consumption over the 5-week test period on the USA Pear web site. All data analysis and interpretation was conducted by the FIC Sensory and Consumer Group staff: Anna Marin, Ann Colonna and Sun Lee. Cooperators at the other test cities were Dr. Zata Vickers and Peter Stenberg from the University of Minnesota, St. Paul, MN and Dr. Harry Lawless and Cathy Chapman from Cornell University, Ithaca, NY.

Results, conclusions, and lessons learned

The following is a summary of significant finding as reported by the Food Innovation Center.

a. Pear Consumption before and after receiving tools:

Results comparing the number of pears consumers ate during the 5 weeks of tracking are presented here. The following table gives the average number of fresh pears eaten by the different subsets of consumers in each test location both *before* and *after* receiving the pear tools. The values are the average number of fresh pears eaten per week per individual. None of the apparent changes measured in the tracking studies, *before* and *after* values, were statistically significant; the changes seen were only trends. Essentially the number of fresh pears consumers ate, on average, were the same *before* and *after* receiving the pear tools. One visible trend was an increase in fresh consumption after receiving the pear tools for all groups tested in Minnesota and all but the Working Adult group in the New York as indicated by the yellow highlighted area. However, in Oregon, fresh pear consumption tended to decrease across all groups after study participants received the pear tools. The reason for this, as reported in the consumer interviews, was that tracking and study participation were difficult during the Christmas holiday season when that part of the study was conducted.

Table 1. Average # of Fresh Pears eaten per Individual per week by Group in all three studies, Before vs. After Pear Packer Tools were given.

	Family Group		Children		Students		Working Adults	
	<i>Before</i>	<i>After</i>	<i>Before</i>	<i>After</i>	<i>Before</i>	<i>After</i>	<i>Before</i>	<i>After</i>
Portland, OR	4.1	2.6	2.2	1.2	2.4	2.0	2.6	2.4
St. Paul, MN	2.0	2.8	0.9	1.3	1.6	2.1	1.6	2.5
Ithaca, NY	0.8	1.6	1.1	1.3	1.7	1.8	2.7	2.4

None of the by location by group changes in consumption of fresh pears before vs. after were significant. Blue (darker) shading indicates decreases in before vs. after consumption. Yellow (lighter) shading indicates increases.

b. Consumers who changed fresh pear eating habits during study

Although the average number of pears consumers ate *before* and *after* receiving the tools did not change significantly, the number of consumers who ate more fresh pears *after* receiving the tools increased significantly. These results are given in the following table. The working adults and students were the groups who tended to eat more fresh pears after receiving the pear tool kit.

Table 1.2. Number and Percent of Consumers in each test city who ate MORE fresh pears after receiving Pear Tools compared to those who ate the same number or fewer fresh pears.

	Family Group		Children		Students		Working Adults	
	<i>More</i>	<i>Same or less</i>	<i>More</i>	<i>Same or less</i>	<i>More</i>	<i>Same or less</i>	<i>More</i>	<i>Same or less</i>
Portland, OR	7 63%	4 37%	11 52%	10 47%	10 83%	2 17%	21 91%	2 9%
St. Paul, MN	17 89%	2 11%	11 55%	9 45%	13 87%	2 13%	16 83%	2 17%
Ithaca, NY	14 74%	5 26%	25 78%	7 22%	14 93%	1 7%	9 60%	6 40%

Focus Group Interview Results:

a. First interviews *before* pear tools:

Consumers in all three locations tended to eat pears more at home than on the go. Reasons for not eating on the go were that pears bruised easily in transit and were messier than other fruit. Some consumers in MN and NY used small individual serving canned pears for on the go eating for themselves and children. Also, some families indicated their children preferred canned pears because of sweetness. Concerns and reasons for not eating fresh pears included not knowing when they were ripe: the pears went "from rock to rotten" and so ended up being wasted - this was a concern for also wasting money and why some consumers preferred canned pears. Also, quality of fresh pears, how they

looked in the store and the price compared to other fruit was a consideration in buying. Consumers also indicated that pears were not as well advertised as other fruit and they often didn't think about them. Only one consumer in Portland knew how to tell when a pear was ripe and none of them had ever heard of the USA Pear website.

b. Final Interviews, *after* pear tool use:

Comments from the focus groups indicated that generally, participating in the study increased their awareness of pears and that the tools made them more aware of fresh pears. Fresh pears were perceived to be more like a snack food with the tools as they made preparation quick and easy. People from Minnesota and Cornell indicated they were more likely to experiment with newer varieties of fresh pears because of the pear information. Also, some consumers in these locations, who previously ate mainly canned pears, indicated they tried fresh pears again because of the tools and liked them as well or better than the canned.

In general, consumers indicated in the focus groups that the Pear Packer was useful to keep the pears from bruising, it made fresh pears portable, it was more convenient for on the go eating, the closure worked well for the right-sized pear, it was durable and could easily be used for other soft fruit. However, concerns were raised about the Pear Packer size not fitting most pears, the sharp edges being dangerous for children and for some consumers, that it was just another thing to carry. Consumers in general said the pear packer did not seem to initiate any lifestyle or eating habit changes. The consumer groups in this study that used the Pear Packer the most included the Student group in Portland and the Family and Student groups in Minnesota. The average use for these groups ranged from 0.9 – 1.3 times per individual per week.

The tracking data and the interviews confirmed that in general, the slicer was the tool liked and used most. Focus group response indicated that the pear slicer was safe, easy to use, made pears less messy to eat and that it was a tool liked by children. Family members indicated that they tended to eat more pears because sliced pears were shared by family members. Concerns included that it did not slice firm or larger pears well, was not convenient for on the go usage and was not as efficient as a knife. Groups that used the pear slicer the most include: the Family group in Minnesota, the Student group at Cornell and both the Family and Student groups in Portland. The average use for these groups ranged from 1.1 – 2.3 times per individual per week.

Suggestions for further research needed, if applicable

From the Northwest pear industry's perspective, this project has shown that there is still a vast potential for getting the word out about the tools and information available from the Pear Bureau and its Website.

As suggested by the FIC, other valuable research related to this project might be to determine if more (or what kind of) in-store promotion, and information provided about taste and use of different pear varieties would increase sales and consumption of pears in

general and more unusual varieties. Consumers in the focus groups said this type of information would be valuable to them.

Also, further research may be valuable in a test market to measure if sales or promotional offering of pear tools or ripening bags with instructions would enhance pear buying.

Current or future benefits to be derived from the project

Below are highlights provided by the FIC on consumer feedback regarding availability of information and tools. Notes from the Pear Bureau are in italic. In general, the biggest benefit we see is that consumers *do* respond favorably to the pear packer and other tools when they are provided, and that there is likely to be a favorable response to any distribution of either information or tools. This provides the Pear industry with a confirmation that there is an information gap to fill, and that the tools and information being created can go a long way to fill that gap.

General consumer acceptance for pear tools concepts

- Pear slicer accepted by all types of consumers but liked particularly by families with young children
- Pear packer concept generally accepted but limitation for size and variety of pears that fit in the packer limited its utility
- Pear Packer redesign to fit more pear sizes could increase the utility of this tool and enhance fresh pear eating on the go (*we are exploring the option of creating a larger sized pear packer to provide two options. However, since pears are not all uniform, there will always be a margin of mis-fitting*)
- Consumer interviews indicated that they were willing to buy the tools, Pear Packer and slicer, at a nominal price and that the Pear Packer might prompt them to consider buying pears to eat on the go (*these items are available through our Website, which indicates we may need to reinforce our efforts on promoting what our Website has to offer. Alternatively, the Pear Bureau may look into selling the tools not just via the Website but also at retail stores along with the fresh product.*)
- Another tool consumers indicated would be very valuable was a pear ripening bag, even just a brown paper bag, but with instructions on the bag how to ripen and how to tell when pears were ready to eat (*This item is one that the Pear Bureau already produces. In hindsight it would have been a good addition to the tool kits*)

The type of information consumers would find most beneficial to increase their awareness and consumption of fresh pears

- Consumers indicated that information on how to tell when a pear was ripe was very helpful so that they had less experience of "rock to rotten" and less pear waste due to not knowing when the pear was ready to eat. (*This observation confirms the Pear Bureau's belief that ripening information is a very crucial key to increasing fresh pear consumption in general.*)

- Consumers indicated they would like to see information about different and novel pear varieties, a description of how they taste and how to use and prepare them in simple dishes. *(much of this kind of information is available on our Website, again emphasizing that we should do more to promote the Website.)*

Additional information available (e.g. publications, web sites)

- A detailed report of the 3-city test will be submitted for publication to the Journal of Food Science.
- An abstract of the study will be submitted for consideration for presentation at the Institute of Food Technologist's annual meeting in July 2005.
- The study will be reported on the Oregon State University College of Agriculture web site: Oregon Invests!
- The study will be made available to all Northwest pear industry members

Contact person for more information

Laura Wieking
PR Manager
Pear Bureau Northwest
4382 SE International Way, Suite A
Milwaukie, OR 97222
Phone: 503-652-9720
Fax: 503-652-9721
lwieking@usapectars.com